

ELECTRICAL CABLE HAVING AN ORGANIZED SIGNAL
PLACEMENT AND ITS PREPARATION

ABSTRACT OF THE DISCLOSURE

An electrical cable has a central conductor structure and a plurality of spiral conductor structures spirally wrapped around the central conductor structure. Each of the spiral conductor structures includes an electrically conducting spiral conductor, and a spiral conductor insulation overlying the spiral conductor. Each spiral conductor structure has no electrically conducting shielding thereon. Each spiral conductor structure retains a same pair of circumferentially adjacent spiral conductor structures along a length of the electrical cable. Each spiral conductor structure has a designated identity, and a circumferential arrangement of each spiral conductor structure is selected responsive to its designated identity and to the designated identities of each of the pair of circumferentially adjacent spiral conductor structures. An electrically conducting outer shield overlies the plurality of spiral conductors, and an outer insulation overlies the electrically conducting outer shield. The electrical cable is substantially circular viewed in cross section perpendicular to the local longitudinal axis.